

THE SCHOOL ARTS BOOK

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No. 2

AQUARIA IN THE SCHOOL ROOM

AMONG school officials the idea has been too prevalent that Nature Study is a subject which requires no apparatus except what may be found among the discarded utensils of the household. And so teachers have been compelled to make the best of old fruit cans and similar receptacles for keeping the living plants and animals in which the pupils find so much delight. But if Nature Study is of the importance which is given it in our best schools it certainly deserves that the small amount of apparatus needed for it shall be of a creditable nature.

In no line of Nature Study do these remarks apply with greater force than in the aquaria which can be made of such vital interest to children of all ages. As a rule the only aquaria to be seen in schoolrooms are glass fruit cans, or perhaps occasionally a fish globe. Yet these are two of the poorest forms possible for satisfactory use. In any aquarium the upper surface of the water should be of as great an extent as any other plane in it, and a rectangular shape is much better than a spherical or cylindrical shape, because the children can see the fishes and other animals without the enlargement or distortion due to the rounded surface of

the glass. By far the most satisfactory aquarium vessels I have seen are the rectangular ones made by Whitall Tatum & Co. They are in two sizes, the smaller holding $2\frac{1}{2}$ gallons, the larger 5 gallons. Each is provided with a neat brass base, so that the whole makes an attractive appearance. The smaller size, with the base, costs \$2.75 net. The list price is about twice this, and if you order one through your druggist insist on his giving the school the benefit of his usual profit. If he will not do this order of the manufacturers direct: they have offices in Boston and New York and I doubt not will give you the 50 per cent discount if you tell them you are buying for the school. The larger size costs twice what the smaller one does.

Being provided with the aquarium the next thing is to stock it. Get some coarse gravel and wash it thoroughly in running water: place this on the bottom of the vessel in a layer two or three inches thick. Then add to the top of the gravel a few larger stones as odd and ornamental in appearance as you can find. The best plant to use is Cabomba, an aquatic species from our southern states which you can buy in the north of the dealers in live fish, or the florists in the large cities for ten cents a bunch. Anchor some branches of this down by means of the larger stones and fill the vessel with good clear water, preferably from a spring, or brook. This plant will grow readily if the aquarium is kept in a

moderately lighted place though it should not be put where it will be in direct sunshine, except perhaps for a short time each day.

When the aquarium is thus stocked with plants you are ready to add to it such animal life as you desire to use in your nature work. The animals to be added will depend somewhat upon the grade of



the school. For the youngest children where you wish simply to illustrate the salient points of fish structure and life nothing can take the place of a goldfish with its comparatively large size and beautiful colors. The color adds greatly to the attractiveness of the fish in the mind of the young child. And I should get a fish normal in structure rather than

one of those abnormal ones with double tails or other monstrous elements.

For higher grades other species are to be preferred, especially those minnows and similar fish that live in the streams and ponds of your own region. The boys will be glad to stock the aquarium with these and will take all the more interest in it when they do. In addition to the common "shiners," which are to be obtained everywhere in abundance, there are the interesting little sticklebacks and sun-fishes as well as the eels which are generally to be found without much trouble. Be careful not to overstock the aquarium; a few serve as well as a multitude, and small ones are to be preferred to very large ones.

You also need a few water snails from the nearest pond both for their interest to the children and their value in keeping the sides of the aquarium free from the minute greenish algæ which are likely otherwise to cover the glass and obscure the view. The snails crawl along the glass eating the algæ as they go. There should be enough of them to keep the glass clean. They will form interesting objects of study.

As to the other things to be kept in the aquarium you must select such as are of special interest to yourself or the school. A few tadpoles are always interesting though when they get legs and lose

their tails they should be transferred to a more shallow vessel where they have a chance to escape from the water. If some sand is in the bottom some fresh-water clams may well be introduced.

The aquarium may well be used at different times for different things. When the children have become familiar with the shiners or other minnows let the fish be carried back to the brook and have the boys stock the aquarium with such forms of insect life as they can find in the neighboring ponds. They will be able to get a surprising number of different forms. To identify these you should have Furneaux's "Life in Ponds and Streams," or Miall's "Aquatic Insects," two excellent books for the school library. Pearson's "Among the Pond People" will be interesting reading for the children in connection with this study.

While I greatly prefer the rectangular aquarium described above, it is by no means necessary to wait for this in order to begin nature studies of aquatic animals. Even a glass fruit jar or a glass candy jar is better than nothing. There are also many forms of cylindrical jars upon the market, to be obtained of dealers in microscopes and school supplies, which serve fairly well for aquaria. One of the most satisfactory of these is the Bausch and Lomb cylinder aquarium jar which is made in several sizes. There is also an excellent series of

jars offered by Williams, Brown & Earle, Philadelphia, which can be used in a vertical series, one fitting onto another.

The various smaller aquaria are especially useful for keeping separately the smaller insects and related creatures.

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METAL WORK FOR HIGH SCHOOLS

OF ALL the various subjects that are classed under the Manual Arts which have been introduced into the public school work during the past few years that of work in sheet metal gives promise of being one of the most permanent.

Two years' experience with classes of twenty boys each have proved this to be a most valuable departure from other lines of work.

As to the popularity of such a course little need be said. At first a few were encouraged to take it; it was then made optional for second year work, and now it has become so popular that it can no longer be made optional on account of limited facilities.

The equipment needed for a start in this work need cost but little, if the teacher makes the patterns for the different anvils. From these the castings can be made at any foundry for three or four cents per pound. It is better to start with a few anvils and keep adding one or two at a time as the need is felt for a more varied supply. The illustrations suggest forms of anvils which have been found most useful.

If the work can be done in a room already fitted with benches and vises, it will reduce the first cost considerably. Any home made bench will do, if none are ready at hand. One that has given satisfaction was made of 2" by 4" studding with plank tops in lengths of 12 feet giving space for four vises

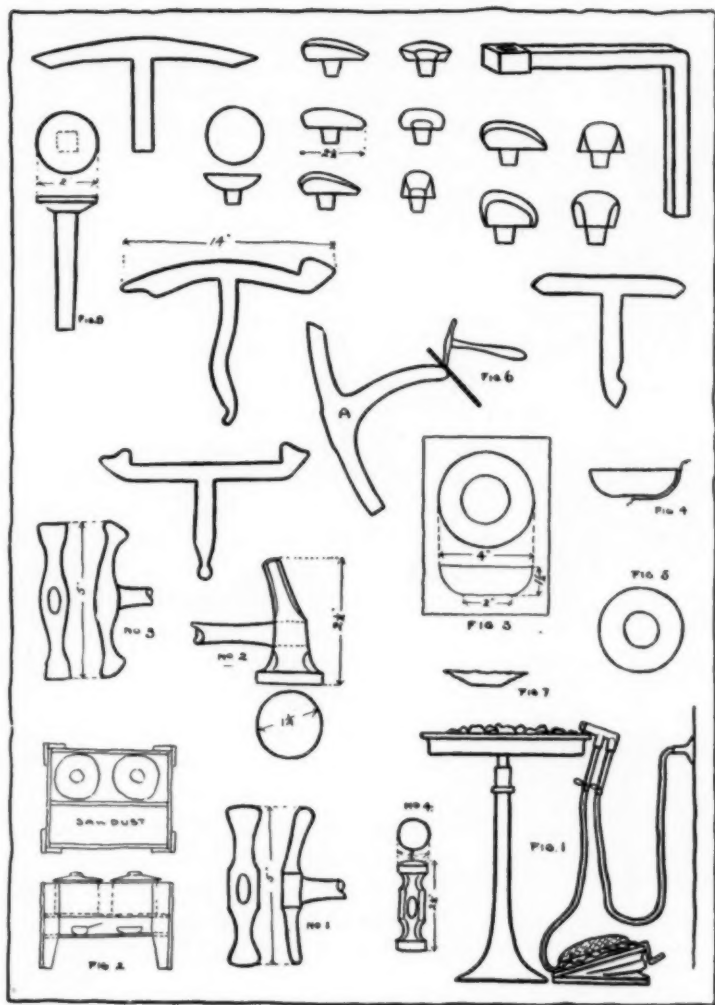
on each bench. A good vise is one which may be turned at any angle with the bench.

An annealing tray made of a piece of sheet iron in the shape of a box about 18" square and 3" deep with the corners lapped and riveted and filled with slag answers very well, but one similar to the illustration figure 1 is better. In this the top is circular and rotary, which is an advantage. A pair of light long nose tongs is needed to handle the work. Any ordinary bellows and blow pipe will do.

A box, figure 2, large enough to hold two 2-gallon stone jars and about half a bushel of sawdust is needed. One of the jars is for water in which the object is cooled after being annealed; the other is for pickle* which is used to clean the work. The sawdust is used to dry the object after it has been dipped in the water. A few small tools such as shears, squares, surface gauge, compasses and calipers (about two of each) and an assortment of files will complete our equipment for the present.

In this, as in other work, it seems best to give each member of the class the same work for a while until they have become acquainted with the different tools and learned the limitations of the material. When this has been accomplished the boys may be allowed to work out their own designs.

* Pickle is a trade name given to solutions used in cleaning work. Different proportions of acids are used according to the work to be cleaned. A pickle that will answer most purposes may be made as follows: 1 part nitric acid, 1 part sulphuric acid, 8 parts water.



The first exercise will be making a bowl hammered out of a piece of copper. For this a blue



print is given each boy showing the shape and dimensions, figure 3, and this they are required to work to as closely as possible. We next select a piece of copper suitable in thickness for an object of this size, in this case 22 gauge.* We then determine what the diameter of the piece of copper should be to make this bowl. A simple way of doing this is to take a piece of string, place it on the blue print or drawing, starting in the centre of the base and follow the curve as indicated in figure 4. This will give the radius, but as the copper stretches to a considerable degree in the hammering process, an allowance must be made. For an object of this size one fourth of an inch should be allowed, so if we subtract one fourth of an inch from the radius we at first found, it will give us the diameter of the copper needed which is 5 1-2 inches.

After describing the 5 1-2 inch circle on the copper another circle should be made

*Gauge is a term used in this article to denote the thickness of sheet metal. The Standard Wire Gauge is divided in gauge numbers from 0 to 36; 22 is equal to about 1-32 of an inch.

for the base of the bowl which is to be 2 inches. These circles should be scratched on the copper but not heavily. We then take the shears and cut the 5 1-2 inch circle, figure 5.

As a rule the copper comes from the rolling mill somewhat hardened, so the first thing to do is to soften it by a process called annealing. This is done by placing the circular piece of copper we have already cut upon the annealing tray, figure 1, and by playing the flame from the blow pipe upon it until it becomes red hot. It is then dropped into the jar of water, figure 2, while hot, using tongs to handle it. It is a peculiar fact that most metals when annealed become softer by allowing them to cool off gradually, but in the case of copper the annealing is helped by dipping it in cold water. The copper is dried in the sawdust and we are ready to begin hammering.

Select an anvil the shape of which conforms to the outline of the bowl and also to the curve of the base. It may be necessary to use several anvils to complete an object but a little experience will help to decide which should be used at first. Anvil A seems to be about what is needed for this particular bowl.

Hold the copper in the left hand against the anvil (which is supported in the vise) so that the end of the anvil comes directly under the circle which represents the base, figure 6. With No. 1



hammer and with light blows at first, we follow the circle closely until we have been around once. This operation is continued, striking a little above the previous blows each turn until we reach the top, when it will take a shape as shown in figure 7. As the hammering hardens the metal it is necessary to anneal it every time after having gone over the



surface. After this is done we proceed as at first until we have the required form as called for by the blue print. The next step is to finish or planish the surface of the bowl which up to this point is quite rough. This is done by hammering over the surface with a broad smooth-faced hammer, No. 2, which takes out all irregular places and leaves a refined curve and finished surface.

If the bottom gets a little out of shape during the operation take a stake, figure 8, and by using hammer No. 3, or No. 4 it can be easily brought back.

During the hammering process the top edge of the bowl has become very irregular. It must be trimmed off level. To do this place the bowl on some level surface (a surface plate will give the



best results) and with the point in surface gauge describe a line about the top making it the right height. A small pair of shears is then used to cut to the line, after which a file is used to finish the edge leaving it perfectly smooth.

After completing the bowl a lesson in metal sawing may be given in making some form of a handle which may be riveted on, adding much more interest to the object.

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APPLIED DESIGN AS VITAL IN THE CHILD'S LIFE

THERE is a certain little camp in Maine that to those who for several Summers have found there their rest and pleasure is voted to be "the Camp of proved desire and known delight." Above it has been written for years the legend

"This is the place we long have sought,
And mourned because we found it not."

In a spirit of abandon to the delight of the out-of-door living one of the campers said she meant to take home with her a tangible piece of the Summer. She would, as she was living in a tent, be a real squaw and weave a chain for her own use, that as it should slip through her fingers, would always recall by the suggestion of its symbols, the glorious days beneath the pines.

In the chain the beads for the tent are white and it stands under a green pine tree just as her own tent was sheltered. The ground of the design is blue, which is appropriate, for on the hillside the blue dome seems to hold and dominate the whole scene. The edge of the chain is silver. So tent and pine tree, sky and water, that which made the happy world for this particular camper, are all symbolized in the colors or forms of the pattern, and it has become to its owner a personal thing and to her is worth more than all the chains in the shops.



It has a use, it embodies a sentiment, it has beauty, and it was her own handiwork. It is in this spirit that true design is developed.

If "grown-up" children, taking such pleasure in their play can turn it into artistic results, what possibilities may there be in the work with children where the play impulse, imagination and love for creating are in full tide! The skill, and sympathy, and artistic appreciation of the teacher are here in demand to turn the expenditure of energy in the right direction.

It is a most obvious lesson. Teach the abstract principles of design as thoroughly as possible, but do not leave the subject in the abstract. Yet to dwell only on the other side would be far worse. It is folly to allow children to attempt design and to carry out work in some material, as wood or cloth, when principles of beauty as applicable to the subject in hand have not been intelligently taught. The thing the child makes, that he carries home and shows as his own work, if it is ugly would better never have been touched. Good joiner work, or good sewing does not atone. It is a wrong to the child, while you are teaching him to construct the thing well, to allow him to make it ugly, whether

unpleasant in its proportions or crude in its decoration.

The paths of design and of applied design, lie along happy ways. The same is true whether for the adult or child. The motifs may be the embodiment of the things he loves; the governing principles, though not abstruse, may be those the greatest architect or painter reveres in his profession; and the object, that he makes something for which he already cares, or in which he can be interested, according to his age or his condition in life.

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ANNOTATED OUTLINES

PRIMARY. First Year. A. Teach the spectrum colors, red, orange, yellow, green, blue, violet. Begin to teach the three primary colors, R, Y, B, and the three binaries, O, G, V, with water color.

If possible bring the real colors of light into the room by means of a glass prism. They furnish a standard of purity and brilliancy. Have samples of the six colors in cloth and paper and smaller samples for children to use. Show a color, have the children find one like it. Give its name. Make use of the name in sentences. Have the children collect objects and classify them according to the six standard colors.

Teach the use of pigments. Fill a brush with water, partly dry it and bring it to a point by drawing it over the edge of the dish, soften the pigment by stroking it with the brush (not by stirring), put the color on the paper with the brush and do not retouch it. Paint a "big red ball," then a yellow one, then a blue one; each a lesson by itself.

B. Make drawings from apples, plums, peaches, lemons, and other fruits and vegetables, using colored pencils or water colors. Emphasize the mass of the whole, not details.

Arrange the object so that it may be seen against a light background. Several may be necessary to give each child a good view. Aim to have the drawings large, in flat, even color, matching the object as closely as possible. Teacher should illustrate position and use of brush often for the class.

Second Year. C. Teach the six typical hues of color, red-orange, orange-yellow, yellow-green, green-blue, blue-violet, and violet-red, and make them in water color.

Teach by mixing pigment colors, showing examples of the typical hues, recognizing and naming them, as the standards were taught in

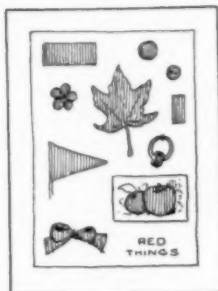
the previous grade. Collect examples and classify them on a large chart arranged as shown in the margin. The small circles represent groups of examples of the color indicated.

D. Make drawings from fall fruits and vegetables of erratic outline as squash, pepper, etc., using colored pencil or water colors. Emphasize mass, and emplacement — position on sheet.

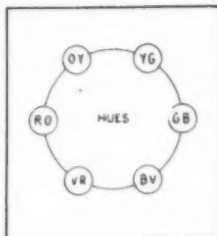
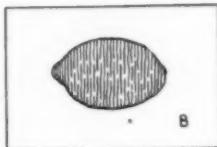
Arrange the object against a background as in the previous grade. Be sure that each pupil has a good view of one. The drawing should be near the middle of a sheet of appropriate shape and size (determined by reference to the object), but not stiffly in the exact center of the sheet. Strive for naturalistic coloring. Do not attempt to represent small details. Teacher should draw on large chart or on drawing-paper, illustrating *how* to use brush and color.

Third Year. E. Teach tints and shades, and make them in water color.

The general idea is all that should be attempted. Take any color, green, for example, and paint a spot on paper. Mix water with the original color, thinning it to produce a very much lighter color or tint, and place that on the paper above the first. Mix a little black with the original color to produce a darker color than the first and place this shade



A



C



on the paper below the first color. Three "values" of color are thus represented. Divide up the work of making a chart. One row make tints and shades of red, another of yellow, etc. Select the best from each and make the chart indicated in the margin. Keep this before the class, reviewing frequently. The chart drawn in the margin has tints at the left and shades at the right of the standards.

F. Make drawings from fall fruits and vegetables such as radishes and turnips with tops, using colored pencils or water colors. Emphasize mass, and emplacement within an enclosing form.

Arrange objects as in previous grades. The object should bear about the same relation to the enclosing form that it did to the sheet in the previous grade. The enclosing form should have a proper margin of paper outside it, perhaps nearly an inch wide on three sides and a little wider at the bottom. The lines should be drawn freehand and with the implement used in drawing the object, the color being a deep shade of that used in the object.

INTERMEDIATE. Fourth Year. G. Teach the relations in the temper of colors—warm and cool—and make a chart in water color.

Red, orange, and yellow are the colors of flame and suggest warmth. Green, blue, and violet are the colors of ice (in masses) the sky and the sea and suggest coolness. Orange is the warmest color and blue the coolest. Red and yellow are equally removed from orange and are not so warm. Green and violet are equally removed from blue and are not so cool. Make a chart showing the relations in temper as indicated in the margin.

H. Make drawings of trees, fruits or autumn leaves, in water color or ink. Emphasize the axis or line of growth in each and the disposition of masses with reference to it. Strive for good proportions and for good color floating.

The drawings should be from such material as is available; the kind of material is not so important as its presence and the proper utilization of it. Up to this time the mass as a whole has been emphasized. Now children should be taught to see that every mass is related to an axis or line of growth which, being straight or curved, determines the general character of the mass. Have the axis or line of growth indicated lightly at the outset. In a tree it is the trunk and "leader," in the fruit the line of the core, in a leaf the midrib. Upon this line balance the mass to left and right, being careful to keep the proportion of width and height as it appears in the object in silhouette.

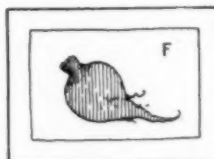
Of course the drawing should be well placed on the sheet with or without an enclosing form. In floating one color into another put one in very wet and introduce the other, allowing them to run together.

Fifth Year. I. Teach the complementary colors, the three groups, R-G, O-B, Y-V, and make a chart showing their relations.

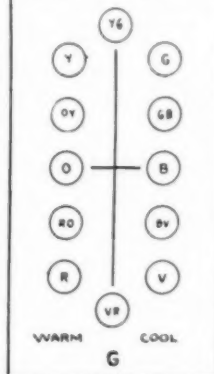
After experimenting with the pigments, mixing red with green, orange with blue, yellow with violet, and noting results, lay out a chart as indicated in the margin, and color it as the initials suggest. The outside colors mixed until they neutralize each other make the neutral gray of the center. Each color at the left of the center is composed of three-quarters of the color nearest it and one-quarter

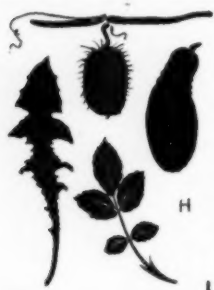
Rt	R	Rs
Ot	O	Os
Yt	Y	Ys
Gt	G	Gs
Bt	B	Bs
Vt	V	Vs

E



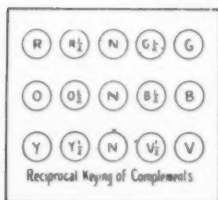
RELATIONS IN TEMPER





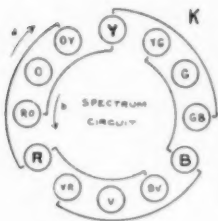
of the complementary. Each at the right, of three-quarters of the color nearest it and one-quarter of the complementary on the opposite side.

J. Make drawings of autumn leaves and large flat flowers like sunflowers, foreshortened, so that they do not appear their true shape. Use the pencil or ink or water color.



The leaves, if long stemmed, and the flowers may be placed in bottles upon the desks, or each pupil may hold his specimen in one hand while drawing with the other. The second way is preferable with short stemmed leaves.

Look with one eye at first, steadily until the object is seen as a mere spot or two of color. Try to put the spots on paper as they appear. If ink or water color is used, two tones, one for the upper side of the leaf and one for the under, one for the light parts of the flower and one for the darker parts, will insure attractive drawings. Emphasize foreshortened appearance.



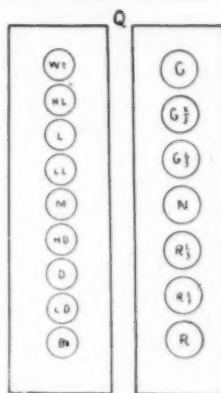
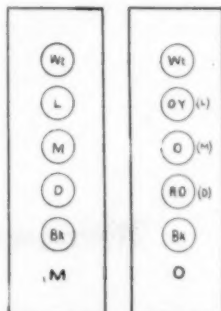
Sixth Year. K. Teach the three groups of interrelated or analagous colors, the minus-blue, the minus-red and minus-yellow groups, with their sub-divisions: R and O, O and Y; Y and G, G and B; B and V, V and R. Make a chart showing them in relation.

This chart shows what may be called the blood-relationships of color. Yellow, red and blue, the primary colors, are unrelated; they have nothing in common. Starting at any one of these in the spectrum circuit (see figure), red for example, it is evident that the RO, O, and OY are all vitally related to red, for all contain some degree of red. It is equally evident that starting with yellow and moving towards red, OY, O, and RO, are all vitally related to yellow because they have some degree of yellow in their composition. The moment pure yellow is included in the red series, or pure red in the yellow series, a color wholly unrelated to the leading color of the series is introduced. The six possible series of inter-related colors are indicated in the circuit by the arcs.

The chart to be made by the pupils is indicated at K. Use the chart in teaching color harmony.

L. Make drawings of fall flowers and leaves in natural positions. Use water color. Aim at a naturalistic effect with attention to important details of growth, form, and color.

In the previous grade the emphasis was upon foreshortening; it is in this grade also, but the element of color is included. A color is sometimes quite different in appearance when seen obliquely owing to reflected



light. The objects may first be drawn in pencil, very delicately, if desired. Avoid heavy and muddy color by using water enough to float the pigment.

GRAMMAR. Seventh Year. M. Teach relation in value and make color scales of five tones.

First make a neutral scale.* Draw five circles as here indicated. Color the lowest one solid black by using charcoal gray very thick, or india ink. Dilute charcoal gray with water and make at M a gray equally removed in value from both white and black, a gray half way between the two in appearance. Still further dilute with water until by testing (a touch on a scrap of paper, dried) the wash will produce a tone half way (L) between middle gray and white. More pigment added to the middle gray wash will give D half way between M and Black in value. When completed the scale should show equal steps from white downward to black or from black upward to white.

When these scales are made divide the class into groups and have each group make a scale with a standard color in place of middle gray, a tint at L and a corresponding shade at D.

N. Make drawings from sprays of fall flowers and leaves, in three (or five, including white and black) related tones of characteristic color.

For example, take a spray of wild sunflower. The characteristic color is yellow. If from a yellow scale of five related tones from white to black the light tint is selected for the rays, the middle yellow for the centers of the flowers and the dark shade for the stems and leaves, the result will be a color scheme of perfectly related tones, suggested by the natural relations of value and hue as seen in the plant itself.

Of course, the pupil's knowledge of good arrangement within an appropriate enclosing form should inform the drawing. The sheet when finished should show a well drawn spray, well composed within

* A Standard Neutral Scale ready to hang before the class as a model may be obtained of The Davis Press. Six cents each. Fifty cents per dozen.



its enclosing form, colored in a scale of five values. (The background is white and the enclosing form is black, thus completing the scale.) The illustration (N) is by Grace Wheeler, Braintree, Mass.

Eighth Year. O. Make color scales of five values in interrelated or analogous colors.

First make a neutral scale, as in the previous grade. Select a binary color and make it in middle value, for example, O. Make a light OY for L and a dark RO for D, or the reverse, a light RO for L and a dark OY for D. The first is usually the more pleasing.

Try another scale with an intermediate hue instead of a binary at middle value. As a rule the tint should be of the color naturally lighter in value than that occupying middle place.

P. Make drawings from sprays of flowers or fruits, in three (or five, including keyed white and black) related tones of characteristic color.

For example, take a spray of quince. The fruit is yellow with green leaves. Having drawn the spray carefully make a tracing from the drawing, color the fruit light yellow, the leaves dark green, and use the third tone yellow-green in middle value for the background. Or, tint the ground a yellow-white, make the enclosing form in green-black, and distribute the three analogous tones to fruit, upper sides of leaves, lower sides of leaves and stems.* The illustration (P) is by Gertrude Baker, Springfield, Mass.

Ninth Year. Q. Make a neutral scale in nine values. Make a scale of five tones between complementaries.

In making the neutral scale begin with white and black, as before; establish the middle tone; then balance the "light" and "dark"

* The tones need not be at full intensity. In fact the drawing might be much more pleasing if they were not, for gray in all the colors would give them another element in common. The gray of any color is produced by mixing with that color its complement.

tones; then strike the intermediates, HL, LL, HD, LD. For directions for making the scale of five steps between complements see fifth year work.

R. Make drawings from sprays of fruits or from groups of vegetables or fruit in three related tones of conventional color.

Having made a careful outline drawing, make a tracing from it and plan the color scheme. Place the scale of complements (for



example let it be red and green) by the side of the neutral scale. The drawing is to be colored in three tones, the $\frac{3}{4}$ red, the middle neutral, and the $\frac{3}{4}$ green; but either the red or the green is to be raised to the value of L and its complement lowered to the value of D. The three tones are therefore light $R\frac{3}{4}$, middle gray, dark $G\frac{3}{4}$. Suppose the drawing to be a spray of grapes. It is not necessary to follow nature in coloring, for the color scheme is to be purely conventional. The three tones may therefore be distributed in any way to produce the most pleasing effect. White and black in very small quantities may be introduced to complete the sheet. A beautiful decorative treat-

ment of plant form is the desired result. The illustration (R) is by "S. A. J.," Westfield, Mass.

HIGH SCHOOL. Freehand Classes.

Continue study of fall flower and fruit sprays. Make decorative arrangements from them and introduce appropriate insect and bird elements as indicated by the Japanese print reproduced herewith. Make the nine toned scale in gray, and a chart of intensities of color worked out in the form of K (The Spectrum Circuit) with each pair of standards connected by such a series of tones as that indicated at Q (G to R scale). Color the decorative panels according to the scales in any appropriate mode of color harmony. Make outdoor harvest sketches. (See Supplement.)

Mechanical Classes. Make sheets of adaptations from plant form. See Outline for October, 1903 (School Arts Book).

From some simple building of small size, a shed, shanty or waiting station, flagman's house or corn barn, make freehand sketches with dimensions, preparatory to a complete set of working plans based upon them to be drawn with instruments. Select if possible a building which may be thoroughly studied and measured by the pupils themselves.

The November Outline will give suggestions for utilizing these studies in elementary architectural design.



HELPFUL REFERENCE MATERIAL

- Autumn and Harvest pictures. Masterpieces by Millett, Mason, et al. Studio, May 1901, pp. 204, 205, 209; July 1902, p. 65; March 1903, plate, p. 41; May 1904, frontispiece.
- Balance. Batchelder, *The Principles of Design*, Chap. III. Daniels, Book, Nov. 1901. Poore, *Pictorial Composition*, Chap. III.
- Color. Examples of good coloring. Arthur W. Dow, Ipswich Prints. *Nomenclature of Color*, Book, April 1904, p. 378. Bunkio Matsuki, *Japanese Prints*. Studio and other publications of John Lane. Current magazines (See Reviews in School Arts Book). Art Education Text Book IV, pp. 20, and 92; V, pp. 23, 33, 47, and 91. Instructions for using color, Prang, *Art Education*. In primary grades, Text Books I, II and III. Kettelle, *Composition in Fine Art*, Chap. VI.
- Decorative Arrangement explained and well illustrated. Art Education Text Book IV, pp. 18-37. Examples of in Dow's *Composition*. Batchelder, *Principles of Design*, Chap. XIII. Studio, August 1901, pp. 110, 113. School Arts Book, Vols. I, II and III, September and October numbers.
- Decorative treatment of plant form, examples: Book, October 1901, pp. 20, 21; November 1901, pp. 19, 20; September 1902, Supplement; April 1903, pp. 185 to 188. *Composition*, Dow. Nature Packet, Davis Press, Plates II, VI and IX. Studio, August 1901, pp. 110-113; April 1902, p. 128; May 1902, p. 224; September 1902, p. 215; May 1904, pp. 191-209.
- Enclosing Forms. Frame lines. Kettelle, *Composition in Fine Art*, Chap. II.
- Rendering, fac-simile reproductions in pencil, black and white and color. Art Education Text Books IV and V. Nature Packet No. 2, The Davis Press. The Studio (References given under Nature Drawing and Decorative Treatment).
- Space Division. Batchelder, *Principles of Design*, p. 156, etc. Hall, *With Brush and Pen*, p. 23.
- Values. How to secure, how to balance them. Batchelder, *Principles of Design*, Chaps. X to XII. For other illustrations see Plates 102 to 109. Kettelle, *Composition in Fine Art*, Chap. V.

THE SCHOOL LIBRARY

Text Books of Art Education, by Hugo B. Froehlich and Bonnie E. Snow. Prang Educational Company, New York, 1904. Introductory prices Books I to IV, 20, 20, 24 and 36 cents per volume.

Books I, II, III, and IV of this series are now ready for use. They are fully equal to the expectations raised by the sample which appeared last spring and was reviewed at length in the June number of the magazine. Superintendents, Boards of Education and all others interested in art teaching should examine these books. For the first time in the history of education a text book to be studied by the children as they study an arithmetic or a geography has been devised and put upon the market. Children must have reference material.

Heretofore this material has been picked up as the supervisor could best find it, from magazines, from various art stores, from art schools, art museums, libraries, etc.; and all this material has had to be selected, and adapted, and at the best it may be said to have been scanty in the best localities, and almost impossible to obtain, in any variety, in small centers. The new "Text Books of Art Education" contain selected material, arranged, classified, and adjusted, educationally and psychologically, to the needs of the pupils in the various grades, in acquiring an intelligent comprehension of how to discover and express the beauty of nature and art. The plan which underlies this series of text books has been thoroughly tested in other departments of knowledge, and has proven itself to be sane, adaptable to varying conditions, and fruitful in results. There is no reason for supposing that in this new field it will not prove equally effective.

These text books are well made. The cover cloths have been selected with good taste and the volumes throughout are exceedingly attractive.

Book I has 72 pages *twenty-five* of which are in color. That fact alone is a guarantee that primary children will like it. The color plates are from landscapes, flowers and the toys and games of children. It would be hard to imagine anything more charming for primary

pupils to study than Red Riding Hood, page 27, and Mr. Balloon Man, page 31. The same number of color pages appears in Book II. The best plates here are the coasting, page 11, the tea party, page 38, and the floral spectrum, page 54. This last deserves mention for the brilliancy not of the color but of the idea (Let us hope that no china decorator will "do a plate" from it!). Book III is equally rich in color. These primary books deal with life in the most fascinating way—the life of the child and of his friends the animals and birds, the flowers and toys, the days and the folks of his happy world. The tools recommended are the tools he loves, the brush, the scissors, the chalk, and the pencil. "The Paradise of Childhood"? Not that ponderous volume by Froebel! No; here it is at last embodied in realizable form by Mr. Froehlich and Miss Snow.

Book IV is larger. It has ninety-eight pages, $6\frac{1}{2} \times 8\frac{1}{2}$ inches, seventeen of which are in color. Nothing better in the way of color than pages 92, 93, 96 and 97, has ever been placed within the reach of children. The same may be said of such black and white illustrations as those on pages 13, 15, 58 and 59. Page 58 is a masterpiece. The topics for the year are grouped under six heads: Out of doors; Growth, Blossom, Fruit; Life and Action; Beauty in Common Things; Measuring and Planning; and Design. The plan for each topic is that approved by the best schoolroom practice, namely, an interesting talk, fully illustrated, followed by definite directions or suggestions for work. Such books will be welcomed everywhere. Of course they are not perfect, nothing is; one can find much to criticise in both text and illustration, but such criticism is for author and publisher, not for the public. The books as they stand are the best things yet for children to study as helps in drawing and design.

**Outlines of The History of Art by William Lubke,
revised by Russell Sturgis; 2 Vols., 8vo, \$10.
Dodd, Mead & Co., New York, 1904.**

This standard work, "edited, minutely revised, largely rewritten and brought up to the present time," by so eminent a scholar as Mr. Sturgis, can not but take its place at once as an authority among

reference books. It contains a hundred and thirty half-tone plates and more than six hundred and fifty other illustrations. Inasmuch as the original was written by Lübke before 1860, and has remained practically unchanged through eleven editions the last of which appeared in 1891, Mr. Sturgis has found it necessary, in the light of recent research and modern ideals, to somewhat modify many of Lübke's conclusions, and to add a good deal of entirely new material. The work is unique among the general histories of art for the space devoted to architecture in Germany. To read such volumes is a liberal education. To have them in a school library where children can see and handle them and go to them for information and entertainment is to establish and conserve a love for the best.

University Lessons on the Fine Arts. Twelve volumes, $8\frac{1}{2} \times 11\frac{1}{2}$ inches, fully illustrated. International Art Association, Chicago. \$7.50 for the set.

These useful volumes, prepared originally for use as an Art Extension Course, have been revised and put into convenient form to be used as text books for a two years' reading course. The list of subjects treated and the authors are as follows: 1. Technique and Principles of Art, Dr. Russell Sturgis. 2. Representative Judgments on the Principles of Art, Prof. Alfred V. Churchill; The Development of Art, Dr. A. L. Frothingham, Jr.; Pre-Greek Art, Dr. John Pickard. 3. Architecture, Greek and Roman, Romanesque and Gothic, Prof. A. M. Brooks; Renaissance and Modern, Prof. H. Langford Warren. 4. Sculpture, Greek and Roman, Dr. Edmund von Mach; Medieval, Renaissance and Decadence, William Ordway Partridge. 5. Nineteenth Century, Lorado Taft. 6. Painting, Greek to Medieval and Renaissance, Prof. Olaf M. Brauner. 7. 17th and 18th Centuries, J. W. Pattison. 8. 19th Century in France, Belgium, Italy, Spain, Arthur Hoeber. 9. 19th Century in Germany, Holland, Denmark, Scandinavia, Russia, Robert Koehler. 10. 19th Century in England, Scotland, America, Prof. Frank F. Frederick. 11. Decorative Design,

Principles and History, Prof. H. E. Everett. 12. Application to the Crafts, Elizabeth Bennett. Oriental Art, Dr. Edmund Buckley. The volumes form a classified history of art and a compendium of art theories attractively presented.

THE SEPTEMBER MAGAZINES

Booklovers.

A puerile cover ornament. The Dutch Children by Marcia Oakes Woodbury are cleverly composed, and well drawn, The color reproduction is much better than this magazine usually affords. The Little Dutch Mother is the best. A Painter of Men and Ideas is an article (too brief) with five illustrations, on the life work of George Frederick Watts. Artistic Bridges and Gateways, a series of half-tones from photographs, furnish excellent material for rendering in values, especially the second, ninth and tenth. Another example is the good picture of a railway train, p. 355. The most instructive pictures in the magazine are the cartoons of Mr. Platt — so little drawn and so much expressed! That on p. 337 is a masterpiece of pen drawing. Those on pp. 344, 345 and 347 are marvels of facial expression. On page 418 is a good example of rendering in four values, and on page 422 is "Gerome's Masterpiece" the "Dying Eagle" monument at Waterloo.

Century.

The illustrations pp. 716 and 731 (and others) have unusual brilliancy for half-tone plates, secured possibly by the use of a very delicate tint block under the darks. Compare Castaigne's interpretation of a Storm at Sea (frontispiece) with McCarter's p. 731. In Castaigne's Wandering Jew, p. 664, notice how the Jew's erratic outlines are repeated in the church, the trees, the foreground figures and still life group. The Fossil Wonders of the West *are* wonderful, and Charles R. Knight has illustrated them wonderfully well. How gigantic the dinosaur is on page 687! and no human being anywhere to give the scale. The same skill is shown on page 693. The dust from the crowd and the play of light through the atmosphere is rendered with

astonishing skill by Castaigne on p. 714. Admirable subjects for interpretation into three or five values are to be found on pp. 697, 751 and 757. Aylward's *Building the Hut*, p. 781, is worth studying for its free and direct handling of the brush and for its effective composition. The thirteenth in Timothy Cole's old Spanish masterpieces is *Don Baltasar Carlos (Detail)* by Velasquez.

Chautauquan.

The Belgium of Charles the Bold and Philip II, by Clara de Grafenried, has twenty-three illustrations from the rich architecture and monumental sculpture of that fascinating country. Among the details are included Van Eyck's *Adoration of the Lamb* and Hans Memling's *Shrine of St. Ursula*. Another useful article is that by Milo Roy Maltbie entitled *Civic Lessons from Europe*. Street Decoration is the specific topic and it is well exemplified by fifteen plates from photographs. This is the first of a series of three. On page 98 is a clear little half-tone of Michael Angelo's *Virgin and Child at Bruges*. Thomas Whitney Lurette contributes an introductory article for a series of six on the Master Musicians and Walter L. Hervey writes about *How The American Boy is Educated*. The teacher of French history will be delighted with Prof. Ogg's article, *Some Features of the Old Regime*, dealing with the Revolution and its causes.

Country Life.

A spray of big yellow apples is on the cover and a basket of apples forms the head piece for the table of contents. Good decorative arrangements of plant form are suggested by the illustrations for the article on *The Peony*, pp. 415 to 417, the *phlox* (central panel) p. 441, and the *peonies* in the ad. p. 387. The *Russian Wolf Hound* is admirably set forth by the fifteen pictures on pp. 418 to 422 (continued on p. 468), and the trotting horse by those on pp. 428 to 431. *Arlington*, the home of Robert E. Lee, is the tenth in the series of *Country Homes of Famous Americans*. The October issue will be the annual *House-Building* number richly illustrated.

Craftsman.

The Foreign Aspect of Mural Painting, by William Laurel Harris, is well written and richly illustrated. One misses, however, the larger work of Chavannes, and such significant designs as those of Ricard and Risler in the Hotel de Ville, Paris. The Spanish Missions have now furnished Mr. James material for one of his most helpful articles — helpful to teachers of manual art — namely, The Furniture and Other Woodwork. The Work of Anthony H. Euwer is set forth by Will Larrymore Smedley with twenty-one illustrations, mostly book plates, some of which are odd and clever enough. A Labor Museum (Hull House, Chicago), by Marion Foster Washburn, is well worth reading. The illustrations of Japanese Porcelains offer suggestions in design, especially in their forms. Not all Japanese "decoration of china" is to be commended.

Harper's.

The three color plates after Howard Pyle are better in color and composition than in drawing. The faces are disappointing and the bodies of the women beneath their garments are of questionable anatomy. The succession of reds in the figures of the frontispiece, the suggestion of rich color in the surf and in the stone wall, page 501, and the splendid reds and greens of the draperies, p. 505, are altogether admirable. Read the Inscriptions for a Friend's House by Henry Van Dyke, p. 507, and look at the Pleiades, p. 509. There is no question as to the solidity of the human figure under the dress, p. 525! The use of the tint block with the half-tone plate is shown most instructively in the article on Caravansaries by Dr. Sterrett. Compare p. 528 with p. 531. Which is sunnier? Compare the interior, p. 533 with the exterior, p. 535. Which is more convincing? The drawings are by a comparatively new man in the field of illustration, Charles Wellington Furlong. They are well composed, well drawn, and effective in notan. Sterner's frank use of the crayon, pp. 587 and 592, make these plates valuable for high school students to study. Charlotte Harding's three plates, pp. 597, 599 and 600, are clever compositions within the vertical oblong. They show one or two

curious slips in cast shadows for high school students to puzzle out. Dr. McCook's article on *The Daintiness of Ants* is a revelation even to the observant lover of nature, and the drawings accompanying it are skilful. The tint block is used again in the article on *Ravenna* by Arthur Symons, most effectively on p. 619. Place four strips of white paper over the yellow margins, p. 618, and see how much more effectively colored the interior appears to be. The strong marginal color now overpowers the delicate tones within. Let the children enjoy the humor of *Natural Taste*, p. 652, and of *The Lamp*, p. 654, both of which are cleverly drawn. *Danger*, p. 656, isn't too bad.

House Beautiful.

An article by James William Pattison on Eugene Carriere is illustrated by that marvel of technique, *Maternity*, which attracts every visitor at the Luxemburg, and which provoked Whistler to exclaim, "Tiens, someone has been smoking in the nursery!" Carriere might be called the George Fuller of France. Read *The Restoration of a Botticelli*, p. 28. The illustrations, pp. 5, 7 and 12, are good to interpret in three or five values.

McClure's.

The reproductions in color of the drawings by Jessie Wilcox Smith are not of uniform excellence. Evidently that on page 473 is best. Miss Smith is too good an artist to make such a green as that on p. 475, or to color a hand rail so obtrusively as that in the frontispiece. How cleverly the wall paper and the china are handled on p. 470! In the series on *One Hundred Masterpieces*, John LaFarge discusses *Triumphs*. The illustrations are from Veronese's *Glory of Venice* and Venice Enthroned, and Tintoretto's *Glory of Venice*. As usual Tintoretto appears as the master of vigorous action and of novel situations. Orson Lowell's illustrations for *The Realm of Enchantment* are better than his wash drawings usually are. They hold together better in notan. The double plate, pp. 524, 525, is a clever composition. The drawing by Lucius Wolcott Hitchcock, p. 552, is a rather good study in values. His four plates are almost unique owing to their lack of strong enclosing lines.

New England.

The most entertaining article is *Caricature in America*, by Rufus Rockwell Wilson, with six illustrations. Miss Amy Woods writes of *Statuary at the St. Louis Fair*, and gives six examples of it in half-tone plates. *The Navajos and Their Blanket Weaving Industry*, by George Leo Patterson, with nine pictures from life, is the report of an eye witness and of value to teachers of design as well as to teachers of history.

Outing.

The *Midsummer Jinks of the Bohemian Club* is like a glimpse into fairyland! This number contains good pictures of sword-fish, kids, geese, cranes, wood-duck, steer, polar bear, Indian ponies and hounds. There are some brilliant photographs from Japanese life and scenery, and a fascinating article, fully illustrated, on *Aboriginal American Canoes* by O. T. Mason. *The Greek Olympic Games* by Arthur Lynch is illustrated by reproductions from Greek sculpture side by side with photographs from modern athletes. What John Burroughs has to say about *Instinct* and "Suicide," is worth reading. The cover contains a spirited drawing in color of three large horses.

Printing Art.

A handsome cover in red, low intensities. An excellent subject for re-spacing, re-drawing and re-coloring, ad. 10 inset. Good examples of coloring pp. 56 inset, 54 inset, 52 inset, 50 inset, and 12 inset. Designs to improve in form, pp. 48 inset, 46 inset, and 44 second inset. Puzzling abbreviations indicating the sizes of books are explained by Theodore L. DeVinne. There is a most useful article on *Alignment of Initials* (ornamental initials) and another on *The Use of Rules*, (margin lines, enclosing forms, etc.) both adequately illustrated. The illustrated article on *The Use of Paper Labels in Book-binding* offers suggestions both in color and design. As usual the magazine is rich in illustrations of value to all interested in more beautiful school work.

Scribner's.

Fine bit of coloring in the frontispiece, by Stanley Arthurs,—a winter landscape with figures. The *Battlefield of the Nations* is full of illustrations well adapted to translating into three or five values. One, p. 259, is already in four, and very effective,—of course, for Jules Guérin did it.

May Wilson Preston's sketches illustrating *The Summer Landlord*, are simple in handling—a bit of wash and a crayon touch or two for each—but full of lifelike character and expression. Frost continues his good work in black and white for *The Soldier of the Valley*, and Yohn contributes one of his clever drawings as an illustration for the *Undercurrent*. Yohn's figures never impress one as having been posed for the occasion, nor are his faces of conventional character. He seldom if ever fails to suggest textures adequately, and is always sure of his relative values. In this illustration (p. 328) notice how well he has suggested white mount for the picture on the wall, flesh color for the hand in the lap, and glossy black for the patent leather shoe. Reuterdaahl's drawing in color, p. 365, came out rather well; it suggests a wealth of subdued color. In the *Field of Art* are two views of the pediment of the New York Stock Exchange by J. Q. A. Ward and Paul Bartlett.

St. Nicholas.

The frontispiece is from Sir Joshua's *Lady Betty Delmé and Her Children*. *Brittany*, *The Land of the Sardine* is intensely interesting and has pictures of quaint Brittany children in costume. The entertaining story of *Kibun Daizin* has, among other illustrations by George Varian, a black and white in a very low key, quite notable among "night" effects. *The Holly-Tree Wight* by Willard Bonte is well identified with his tree. It is a clever piece of design. On page 988 is an unusually happy bit of photographic work from a pair of rabbits. *The County Fair* contains novel suggestions for supplementary constructive work in wood, paper, etc. High School pupils would be helped in rendering features by copying in pencil the head on p. 1018 by Tom Mills.

Studio.

The work of Moffat P. Linder, a lover of Venice, is shown by five half tones and two color plates, the frontispiece being one of them, a delicate high key piece of coloring of a rosy hue.

The French Primitifs, to judge by the five illustrations, are more medieval in manner than the English Pre-Raphaelites. The most pleasing seems to be Elizabeth of Austria by Clouet. The work of Max Lieberman, evidently fond of old men and women, is exemplified by seven half tones. The most attractive illustrations are from the strong sketches of Joseph Crawhall, master draughtsman, and Paul Renouard, another. The first excels in the use of wash and the second in line. The rooster, p. 218, and the baby, p. 225, are admirable for upper Grammar children to study and *copy*. Of the articles dealing with architecture and decoration the most interesting is that on The Peacock Room decorated by Whistler, p. 241, etc. The next, the Modern House at Southbourne by P. H. Emerson. Here are sensible hints for manual arts teachers. Mr. Clement Heaton's work is of unusual interest for its complexity of line and breadth of effect. His designs maintain a very high average. The unusual sculpture of Courtney Pollock is represented in six half tones, and the reliefs of H. Kautsch by eight half tones. By far the most original and decorative landscape of the year is that by Charles Walter Stetson, p. 255. The work of Harry E. Goodhue in stained glass is illustrated by five plates. The Quaker shops of Philadelphia furnish designs of unusual merit for metal work, and the Craftsmanship of Ossining, N. Y., is represented by four plates from their furniture, evidently after the manner of the Craftsman furniture of Syracuse.

World of Today.

The Republic That is An Empire contains six tinted half tones from the Louisiana Purchase Exposition, the first being from the Monumental group Music and Art by Herman McNeil. There are in this number twenty-seven tinted half tones and sixty-six other pictures from the great Exposition. Seven of these are from its sculpture and eleven from the paintings there exhibited. Two of the paintings are by Zorn, one by Liljefors and one by L'Hermitte. Remington, Bitter,

Taft and Brewer are the American sculptors represented by half tones. The comparison of the two Courts of Honor (Chicago 1893, St Louis 1904) is instructive for it reveals the increasingly important part of the landscape architect in world's fairs, but one must say that the Chicago court is not seen at its best in this picture. The points of view for the photographs from the exposition grounds were selected with excellent good taste, and the reproduction of the photographs is most successful. Compare p. 1125 with p. 1126. Does the yellow margin help?

World's Work.

The first feature to attract the attention of the drawing teacher is the unusual number of fine pictures of horses. There are fifteen plates showing horses in different positions. It is not often one has a photograph of a pure-bred Arab Stallion (p. 5300) with which to compare Schrier's horses at the fountain and elsewhere. Teachers interested in weaving will enjoy *A New Ireland* by Seumas MacManus, and those interested in geography and history *The Iron Mines* that give us *Leadership*, by Francis N. Stacy, with nine astonishing illustrations, and *Into Mysterious Tibet*, by Chalmers Roberts, with ten illustrations, some of which are equally astonishing. All teachers will enjoy reading *Backward Country Schools Near Big Cities*, by Adèle Marie Shaw, with thirteen illustrations.

Miscellaneous.

With regret we learn that the Pratt Institute Monthly will cease publication. It would be difficult to name a more interesting School Paper or one of greater value to teachers, valuable not only for what it contains, but for what it suggests to the wide-awake. The May number—the last—is a Kindergarten Number. It has some charming original rhymes for games and movement plays.

Do you ever see *Time and Tide*, the well-printed bulletin of the Art-Craft settlement, New Clairveau, at Montague, Mass.? The work of Edward B. Pressey, the founder, is quite as interesting, in its way, as that at East Aurora.

The United States Government publishes some things of direct value to teachers of drawing. A list will be given in the November Number.

EDITORIAL

OCTOBER! The harvest of the earth is being gathered from all our northern zone. Let us rejoice in the glories of color, in the sharp contrasts of the early morning and the soft blendings of the afternoon sunlight and shadow.

Once more the liberal year laughs out,
O'er richer stores than gems or gold,
Once more with harvest-song and shout
Is nature's bloodless triumph told.
Our common mother sits and sings,
Like Ruth, among her garnered sheaves;
Her lap is full of goodly things,
Her brow is bright with autumn leaves.

The whole of this splendid Harvest Festival by Whittier ought to be read again by every one of us, and parts of it utilized in the autumn language work.

[The wonderful seed packs—pods, berries, fruits of all sorts—with their quaint or graceful shapes and their subdued or brilliant coloring, together with the autumn leaves and the harvest fields, furnish ample material for drawing and coloring. In the cities harvest pictures, and fruits from the market with stories by the teacher and quotations from literature will have to take the place of the real thing. But city teachers must remember what possibilities lie within the circle of their limitations. Alas too often in the country familiarity breeds indifference. The autumn pours its splendors upon those who see nothing but potatoes to be

picked up after school or beets to be pulled before breakfast. In the cities

Yon ridge of purple landscape,
Yon sky between the walls,
Holds all the hidden wonders
In scanty intervals,

if the teacher is of the right sort and country bred.

¶ The supplement this month brings a bit of the New England harvest to you all, and shows how such material may be used by the older pupils. The sketch by Mr. Randall was made directly from nature, but it shows how by selection and arrangement the complexity of nature is reduced by the artist to a simpler form retaining the spirit of the original and suggesting to the mind not a particular harvest but the harvest time. The original was drawn on fairly smooth paper with a soft lead pencil, a "sketching crayon."

¶ The first article in this number of the Book describes an accessory worth having in every school building. An aquarium, like an open fire, is a living picture in three dimensions. Children delight in such things. The aquarium in my own home is made of the largest size "sandwich-pile cover" such as may be seen at a railroad restaurant. This is turned knob down upon a circle sawed from two-inch plank with a hole cut in the center more than

large enough to receive the knob. Such a tank costs about two dollars, never leaks, is strong, durable, easily kept clean, and entirely satisfactory. It holds two buckets of water and will support a half-dozen kinds of plants, three four-inch gold fish, two clams and a half-dozen snails without the slightest trouble, IF you can find the right place for the aquarium to stand, a place where it receives some direct sunlight but not too much, and where it will keep cool but not too cool. There is a little book by Mark Samuel entitled *The Amateur Aquarist*, published by the Baker & Taylor Company, 33-37 E. Seventeenth Street, New York, which tells all one needs to know, so far as it can be told in print, in order that success may be achieved. A good aquarium helps in nature study, drawing, language and the study of color.

¶ Metal work for High Schools is the first of a series of articles by Mr. Rose, whose work in the Providence Manual Arts High School ranks among the best in the country. The exhibit which this school sent to St. Louis was notable for its technical excellence but more notable for the artistic quality of its design and for the sensible manner in which it was displayed. An exhibit of metal work, for example, which attracts by its arrangement, holds by the beauty of its every detail both in form and color, and satisfies by the excellence of its workmanship, is not as yet the rule in America.

¶ The article by Mrs. Jones states admirably in concrete form the secret of all the greatest applied art of the world. Now that it is not only an open secret but so obviously open, let every pupil know it and give him opportunity to act upon it. This letter from Mr. Whitney with the illustrations from the work of children gives one possible application of the principles set forth by Mrs. Jones.

SALEM, MASS.

Dear Mr. Bailey:—I want you to know how much I appreciate the School Art Books. If all the subscribers receive the help and inspiration which my teachers and I do from studying it you may be congratulated. It is full of helpful suggestions each month and eagerly opened on its arrival. I was much interested in some of the calendars suggested of late, and wondered if what we were doing would be of interest to you or others; so I enclose a few which have been made recently. You should see the originals!

They are made of card board 22" x 28"; large enough so that they can be seen across the room. The card board is measured by the children and divided into spaces to be filled later. These spaces consist of an oblong for the illustration, and squares for the letters and figures. So far we have always made the squares 2½" allowing a concentric 2" square for each of the numbers.

After this measurement lesson we cut a lot of 2" squares ready for numbering, then proceed to plan the illustration.

The lesson so far has been animal drawing. We use the live animal if possible, if not, stuffed specimens and pictures. The drawing is frequently taken in connection with the reading lessons, the books generally having many good animal pictures. I draw upon the board sometimes calling one or two children to draw with me, acting as assistant teachers. Then upon the board or upon paper we all try what we can do, the children often surprising one by their good drawings, and the readiness with which they detect characteristic lines.



A P R I L

S · M · T · W · T · F · S

					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30



S · M · T · W · T · F · S

A	P	R	I	L	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

S E P T E M B E R



S · M · T · W · T · F · S

					1	2	3
4	5	6	7	8	9	10	
11	12	13	14	15	16	17	
18	19	20	21	22	23	24	
25	26	27	28	29	30		



F E B R U A R Y

S · M · T · W · T · F · S

	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29					

The next lesson is memory drawing, the children trying the animals in various positions, using either pencil or brush and ink. By the time the third lesson arrives we are ready to make our picture. I call a group of children about a large table, and they cut out and place their drawings, pasting them in the space previously prepared. The enclosed rabbit calendar was made by grade 2, the frog calendar by grade 3, and the squirrel by grade 4. The calendar for April, with the illustration of the rainy windy day is being made but is not yet completed.

It is fun to see the children place the drawings, trying them here and there till they are satisfied with the effect, and it doesn't take long for them to realize that the smaller drawings look best in the background of the picture.

The 2" squares of which I spoke are then distributed and the children try their hands at lettering and numbering. When they succeed they are allowed to paste their 2, 7, 9, or whatever it may be in its proper square on the large card. You can imagine the pride with which they walk to the front of the room and proceed to paste the square in its place.

When completed the calendar is the chief adornment of the room (at least for awhile) and each child has had a hand in making it. Now my dear friend if any suggestion here is worth while it is yours to use, if not, dump the whole business into the waste basket, unless it is already full, if full it is still cold enough so that a bit more full won't come amiss.

Cordially yours,

FREDERICK WHITNEY.

¶ The statement made last week concerning the flexibility of that chart of the course is illustrated this month in the Outline. The elements of color tabulated under "November," begins to appear in October. Possibly your pupils have had enough practice in coloring to enable them to make the

sheets outlined in two lessons, but the probability is your pupils will need so much time to produce good results that Thanksgiving will be upon us before we can say thanks for them. The good results will appear sooner or later, for the topics are given in an order approved by practice, and but one new element is presented in each grade.

¶ Interest in color does not wane. The little chart prepared by Dr. Haney has gone all over the country. Letters come from isolated teachers asking for instruction by correspondence. Mr. Edgar O. Parker, a pupil of Dr. Ross, of Cambridge finds it impossible to continue his correspondence classes, and good teaching in color by mail is now hard to find. The Davis Press has something in preparation which, it is hoped, will meet the needs of teachers everywhere who want to learn the facts of color and the laws of color harmony. Meanwhile we can but lament our poverty in the literature of color. Mr. Munsell's book has not yet appeared. Dr. Ross' book is still in the making.

¶ Teachers are subject to "the divine discontent." They who teach others see clearly their own need of teaching, and reach out constantly for fresh fruit from the tree of knowledge. They have to solace themselves with its summer fruits, mostly, and for that reason the summer school announcements in the June number were greatly appreciated. It is a

pleasure to announce the opening of a new department for the teaching of the school arts by the State Normal School of Florida at DeFuniac Springs. Here is a winter summer school! Here from October to May one may find instruction in Drawing, Art, Modeling, Weaving, Card, Wood, and Metal Work, and Domestic Economy, under competent teachers and in an ideal climate. Miss Mabel W. Rindell is director of the department.

¶ Dozens of supervisors and teachers of drawing and the allied arts were in Europe this summer. They have returned with a richer equipment for teaching, a clearer vision of our need of sound art and industrial education, and a greater love for our big, hustling, bungling, good-natured country, where women are respected, and little children are not in the way all the time. They return with a deeper faith in America, and with thanksgiving to God that they live in a country where there is "work enough, and tools to work withal, for those who will."

¶ "Crayola" is the name of some new crayons recently put upon the market by Binney & Smith Co. of New York. It would be difficult to find other crayons which match them in purity and brilliance. Their peculiar texture makes possible a delicacy of tint on the one hand and a depth and richness of shade on the other, quite unattainable with impure colors.

THE SPIRIT OF THE MASTER CRAFTSMAN

Who draws a line and satisfies his soul,
Making it crooked where it should be straight?
An idiot with an oyster shell may draw
His lines along the sand, all wavering,
Fixing no point or pathway to a point.
An idiot once removed may choose his line,
Straggle and be content; but, God be praised,
Antonio Stradivari has an eye
That winces at false work and loves the true,
With hand and arm that play upon the tool,
As willingly as any singing bird
Sets him to sing his morning roundelay,
Because he likes to sing and likes the song.

Attributed to Stradivarius, the famous
violin maker who had been accused
of working only for pelf.